Environmental Management System Description

U.S. Department of Energy

Office of Legacy Management

Work Performed Under DOE Contract No. DE–AM01–07LM00060
for the U.S. Department of Energy Office of Legacy Management.

This page intentionally left blank

LMS/POL/S04346-0.0

Copy No. _____

U. S. Department of Energy
Office of Legacy Management

Environmental Management System Description

This page intentionally left blank

Environmental Management System Description
Document History

Version No./ Revision No.	Date	Description of Change
0.0	09/19/2008	Initial issue under the LMS contract. Previously issued as DOE-LM/1479-2007 in May 2007.

Approved:

Tracy A. Ribeiro

Digitally signed by Tracy Ribeiro
Date: 2008.09.18 08:44:07 -06'00'

Tracy A. Ribeiro
Environmental Management System Lead
DOE-LM

Date

Barbara A. Mazurowski

9-17-08

Barbara A. Mazurowski
Technical Services Manager
S.M. Stoller Corporation

Date

This page intentionally left blank

Contents

Figures

Appendixes

Executive Summary

This document describes the U.S. Department of Energy Office of Legacy Management's (DOE-LM) Environmental Management System (EMS). The EMS provides a structured approach to facilitate DOE-LM's support of overall agency policies related to the environment and to attainment of required national sustainability goals. This EMS reflects the values expressed in the DOE-LM Environmental, Safety, and Health Policy Statement (provided in Appendix A to this document).

Specific national goals related to improving energy, water, and fuel efficiency and using environmentally preferable products and services are stated in Executive Order 13423 (Strengthening Federal Environmental, Energy, and Transportation Management) and DOE Order 430.2B (Departmental Energy, Renewable Energy and Transportation Management). The recently approved DOE Order 450.1A (Environmental Protection Program) reinforces the need to respond to and to meet the national goals through implementation of an EMS that considers environmental aspects affected by all agency activities.

DOE-LM will meet these stated national goals through use of individual programs developed to provide a systematic process to achieve mandatory efficiencies. These programs are an integral part of the DOE-LM EMS and apply to all DOE-LM offices.

DOE Order 450.1A also requires the implementation of an EMS that reflects the elements and framework found in the International Organization for Standardization (ISO) 14001:2004(E) or equivalent. This DOE-LM EMS integrates the four core elements of ISO 14001:2004 (E) *Environmental Management Systems - Requirements with Guidance for Use.* These elements include (1) planning, (2) implementation and operation, (3) checking and corrective action, and (4) management review. These elements are commonly referred to as a Plan-Do-Check-Act continuous cycle and apply to all DOE-LM and contractor work processes and activities.

DOE-LM and its contractors are committed to systematically integrating environmental protection, safety, and health into management and work practices at all levels so that the DOE-LM mission is accomplished in a manner that continually integrates environmental aspects during planning, implementation, monitoring, and project evaluation and closeout.

Guidance for identifying environmental aspects, objectives, and targets that are related to proposed activities is included in the EMS and ensures that DOE-LM staff and contractors maintain compliance with applicable regulations and appropriately plan and implement activities.

This page intentionally left blank

1.0 Introduction

The purpose of this document is to provide a description of the U.S. Department of Energy Office of Legacy Management (DOE-LM) Environmental Management System (EMS). This EMS reflects values stated in the DOE-LM Environmental, Safety, and Health Policy (LM P 450.1, Appendix A) and applies to DOE-LM and to all contractor or subcontractor personnel.

The DOE-LM EMS consists of a systematic process and approach for management of DOE-LM activities and their environmental interactions. Use of the processes described in this document will assist DOE-LM and its contractors in avoiding, reducing, or controlling adverse environmental impacts associated with program activities. The EMS ensures that employees participate in a continuous environmental evaluation of project or activity components from their specific expertise and role within the agency or contractor staff. The use of media and training reinforces the interconnectedness of staff and activities.

Individual programs were developed by DOE-LM to assure attainment of the national sustainability goals stated in Executive Order 13423, DOE Order 430.2B, and DOE Order 450.1A. These programs and the program team concept are briefly described in this document.

This EMS was prepared using the overall guidance and requirements for facility EMS procedures, requirements, and implementation described in the International Organization for Standardization (ISO) 14001:2004 (E). It provides a systematic process and approach for integrating environmental protection, safety, and health into management and work practices and emphasizes use of a four-part continuous cycle of Plan, Do, Check, Act.

By following an EMS process, DOE-LM and its contractors can better meet their environmental obligations and manage their interactions with the environment, as well as ensure that internal and external regulatory requirements are continually being met and considered throughout project and activity development and implementation.

This document describes the scope and applicability of the DOE-LM EMS (Section 2.0); the DOE-LM environmental policy (Section 3.0); and the components of the EMS process. Section 4.0 provides a description of the planning phase and how environmental aspects are identified during this phase and related to regulatory compliance requirements. Section 5.0 describes the development of aspects and how they lead to the identification of objectives and targets.

Section 6.0 identifies the roles and responsibilities of personnel as related to implementation of the EMS and how the activities and programs will be documented and reported. This is the ‘Do’ phase of the Plan, Do, Check, Act cycle. As part of the continuous improvement commitment, activities and/or program performance will be monitored to assess how well they are achieving their stated goals. The need for corrective actions may be indentified or the need for additional monitoring may be required. A description of this process is provided in Section 7.0. The final part of the cycle incorporates management review or ‘Act’ and is described in Section 8.0. Section 9.0 provides a list of definitions and Section 10.0 provides a list of references.

This page intentionally left blank

2.0 Applicability and Scope of EMS

2.1 Applicability

This EMS is intended for use by DOE-LM and its contractor personnel and applies to all subcontracts performed under the direction of DOE-LM. Figure 2−1 illustrates the flow-down relationships that are covered under the "umbrella" of this EMS.

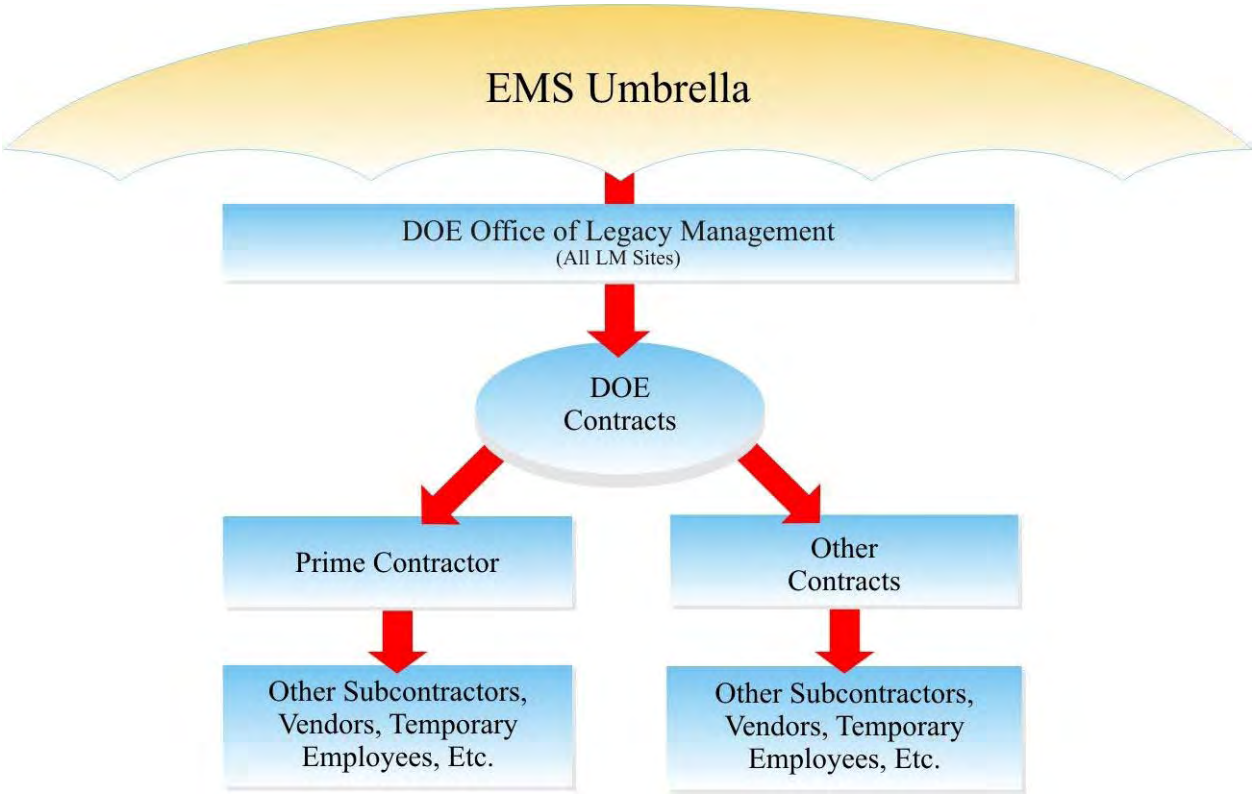

Figure 2–1. EMS Relationships

2.2 General Requirements

Most federal facilities have adopted the ISO 14001:2004(E) EMS standard as the framework upon which their EMSs are built. Similarly, this DOE-LM EMS framework is based on the standard elements identified in ISO 14001:2004(E) and integrates these elements into the core functions of the contractor's Integrated Safety Management System (ISMS).

2.3 Integration of EMS into ISMS

DOE Order 450.1A requires DOE organizations to ensure that their EMS is integrated into the site's ISMS. The integration of an EMS into the ISMS provides a unified strategy to manage resources, to control and attenuate risks, and to establish and achieve the organization's environmental, safety, and health goals. Under ISMS, the term "safety" also encompasses health and environment (DOE Policy 450.4); therefore, the guiding principles and core functions in

ISMS are as applicable to the protection of the environment as they are to the protection of employee health and safety. All work activities are analyzed and reviewed for potential health and safety risks and environmental impacts prior to their performance.

The EMS and ISMS strive for continual improvement through a Plan, Do, Check, Act cycle. Figure 2−2 depicts how the EMS elements (blue) and ISMS core functions (yellow) relate to each other.

Figure 2–2. Overlap of EMS Elements and ISMS Core Functions

This “continual improvement cycle” is a core tenet of the EMS and allows the system to adapt to the dynamic nature of the organization’s operations.

The DOE-LM EMS utilizes a Core Team to integrate the EMS and ISMS. The Core Team is comprised of key personnel who represent Health and Safety (H&S), Environmental Compliance (EC), Quality Assurance (QA), Procurement, and senior management from both DOE-LM and contractor staff. The core team provides oversight to the EMS process and participates in regular meetings to discuss status of programs, training, and communication. The actual composition of the Core Team may change in response to current concerns or issues. Additional details on Core Team member responsibilities are provided in Section 6.1.5.

3.0 Environmental Policy

An environmental policy statement is the basis for an agency's EMS. DOE-LM's policy statement (P 450.1, approved 08-29-05, see Appendix A) is a declaration of the DOE-LM commitment to protection of the environment, safety, and health and serves as the foundation for this EMS. All employees are expected to be familiar with and to understand the DOE-LM environmental policy statement. The policy aligns with DOE-LM's core mission and includes a commitment to continual environmental improvement, the integration of health and safety, and regulatory compliance. The procedures and processes for implementing the commitments in this policy are described in this document and in the documents referenced herein. Conformance with the EMS is evaluated through ongoing self-assessments and internal auditing programs.

The DOE-LM Environmental Policy Statement is communicated to all employees through EMS general awareness training, various EMS-related publications (e.g., this document, brochures, and posters) and is available via links on the local intranet. This policy also is communicated to the public through the DOE-LM Internet site at:
https://lmportal.lm.doe.gov/portal/server.pt/gateway/PTARGS_0_0_402_225_0_43/http%3B/ash.gjo.doe.gov/remotegadgets/lmintranet/lm_policies/Policies/P450-1fnlPolicy.pdf

This page intentionally left blank

4.0 Planning and Aspects Identification

4.1 Planning

Project and Program planning is a fundamental part of the EMS. During this phase of the EMS, new work or required actions are identified, teams are assembled, and the specific details are developed and evaluated based on factors such as engineering feasibility, environmental requirements, and schedule considerations and site needs. Planning occurs at all levels and involves affected staff.

The general planning process for the contractor begins with a request from DOE-LM for work. A task order is developed that identifies funding and scheduling. The applicable manager of the task order will forward the request to the appropriate site lead who will begin a planning process that incorporates input from EC, H&S, and QA functional groups as well as contracts and purchasing. This core team ensures that a multiple discipline approach is established and maintained during the initial phases of the project. Once the project or program planning is underway, appropriate specialists are called in as needed. The task order process is defined below.

4.1.1 Task Order Process

The basic elements of the task order process are depicted in Figure 4–1. DOE initiates the task order process by issuing task orders assignments for discrete projects or programs (i.e., tasks) with a defined beginning and end. DOE-LM and the contractor negotiate and finalize the Task Order Plan, which includes agreed-upon deliverables with measurable milestones. DOE-LM is responsible for monitoring the performance of the contractor against the Task Order Plan and the stipulated deliverables and milestones.

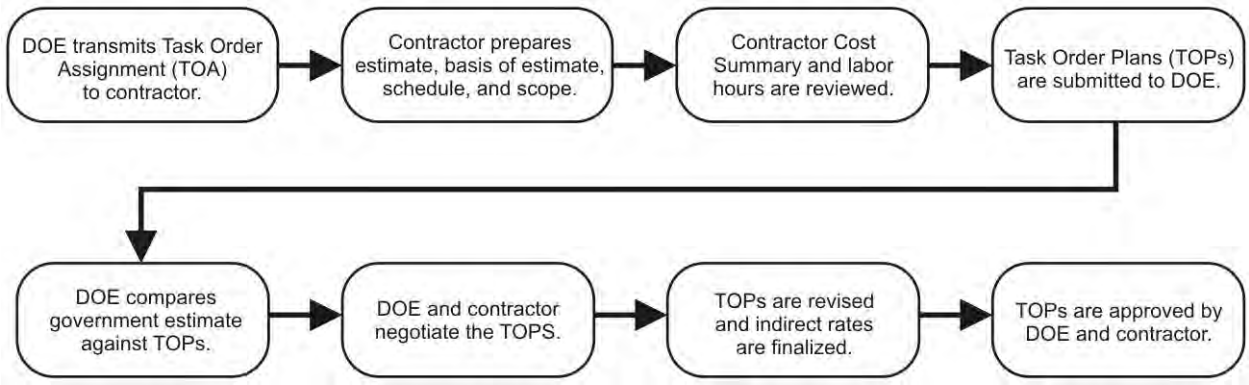

Figure 4–1. DOE Task Order Process

The contractor is responsible for implementation once the task order is negotiated and finalized. Senior management manages the overall contract and establishes priorities among the projects and programs. Task managers assemble the resources required to successfully complete the task order. Subtask managers/site leads are accountable for their assigned scope, budget, and

schedule. The LMS Contractor Workflow diagram identified in Attachment B to *Conduct of Operations Manual* (LMS/POL/S04374) is a guide to assist task/subtask managers in the development of work packages to complete task orders.

4.2 Aspects and Activities

Environmental aspects are the attributes of a project or program activities, products, and services that interact with the environment. Activities are generally associated with project work efforts and include all functional groups that support the projects. For example, a proposed project activity such as upgrading a dirt road may require a contract that must be processed through the document production and editing staff; require administrative assistance; include the need for procurement; and require an initial field engineering assessment. The aspects related to the proposed activity may include fugitive dust emissions, use of energy, and solid waste generation. The resulting negative impacts may include water, fuel, and raw material consumption while a positive impact may be related to a future reduction in erosion as well as a reduction in sediment transport to surface water bodies.

All environmental aspects result in direct or indirect impacts on the physical or human environments. An example of a direct impact on the physical environment is erosion, while an indirect impact may be the use of straw bales to control erosion. Straw bales are composed of straw, which requires the use of energy to grow, harvest, manufacture, and transport. Another example of an indirect impact is the consumption of raw materials by workers to access their place of employment. This EMS focuses on identifying direct impacts related to activities and aspects.

Environmental aspects are evaluated annually in advance of the new operating fiscal year when specific work tasks have been or will be negotiated between DOE-LM and its contractor(s). Determining the significant environmental aspects during the task order process ensures that resources will be available to address those aspects that have a potential impact on the physical or human environment.

Annually, the EC staff combines employee and project management input on the project or program to develop and/or update a comprehensive list of aspects related to planned activities, products, and services. During this time, environmental interactions related to the aspects are discussed and evaluated with the applicable project or program management. In some cases, the need for additional staff or other resources related to attaining objectives and targets may be identified and are incorporated into the task order process to ensure adequate funding and resources.

Each identified significant environmental aspect is evaluated and assigned a numerical score based on the following criteria: (1) the degree to which the aspect is regulated by federal, state, or local regulations, or by DOE orders; (2) the potential for a regulatory (non-compliance) violation to occur; (3) the severity of consequences resulting from violating applicable regulations; (4) the relative significance of impacts to the environment, or to health and safety; (5) the impacts to DOE's ability to perform and/or complete its mission; and (6) the frequency of the aspect. An overall score is calculated for each environmental aspect. An example of a table that could be used for this purpose is provided as Table 1 (Example of Table Used to Score Environmental Aspects for Work Activities) in Appendix B.

Prior to the beginning of the new fiscal year, affected project or program management staff will review the list of significant environmental aspects and establish objectives and targets appropriate to the significant aspects. The project or program management staff will then develop a summary of the resources and schedules required to meet the objectives and targets during the upcoming fiscal year. This summary will be submitted to the DOE-LM project and Prime Contractor senior management for approval and authorization. Once approved, significant environmental aspects and their associated objectives and targets will be posted on the EMS Internet web page.

Tables 2 and 3 in Appendix B provide examples of the types of tables that could be used to develop objectives and targets and to identify resource requirements related to proposed activities.

As part of the Plan, Do, Check, Act continuous improvement process, significant environmental aspects and their associated objectives and targets may be revised, omitted from further consideration, or modified during the year. These changes may be related to evolving information that was not available during the task order process, or may be necessary due to changes in work scope or changes in work processes or procedures. In addition, the resulting objectives and targets may be determined to be impractical, insufficient, cost prohibitive, or prove to be of little or no overall benefit to DOE.

4.3 Legal and Other Mandatory EMS Requirements

4.3.1 General

This EMS assures that all regulations applicable to the environmental management system process are inherently considered during the planning, implementation, checking, and management of activities conducted by DOE-LM or contractor staff. Appendix C to this document includes a listing of relevant DOE Orders and federal laws and regulations. In addition to this list, various legal or other requirements related to individual states, tribes, or agencies must be considered during various phases of an EMS activity. Ongoing compliance coordination with various agencies, states, or other governmental entities provides updated regulatory requirements during all phases of the EMS.

The range of activities occurring at the sites and locations covered by this EMS vary from inactive closure sites with record keeping or groundwater monitoring responsibilities to pump and treat groundwater treatment systems. Some sites contain offices and support staff; however, the majority of the DOE-LM sites are records only or are privately owned but have groundwater monitored by DOE-LM. Consequently, the applicability of various “Legal and Other Requirements” is expected to vary significantly from site to site.

For the purpose of emergency management, the DOE-LM offices and sites are considered a single entity and activity. In evaluating environmental aspects, it is important to recognize potentially dangerous situations.

Three orders that require integration within the EMS are incorporated by reference in this EMS description and are briefly summarized in the following sections. In addition, the Transformation

Energy Action Management (TEAM) Initiative, which applies to all DOE-LM sites, is provided in Section 4.3.5.

4.3.2 Executive Order 13423

This order states the official federal government policy related to energy efficiencies and transportation management and establishes specific goals and attainment schedules. It directs all federal agencies to implement sustainable practices for energy efficiency and reductions in greenhouse gas emissions; use of renewable energy; reduction in water consumption intensity; acquisition of green products and services; pollution prevention, including reduction or elimination of the use of toxic and hazardous chemicals and materials; cost-effective waste prevention and recycling programs; increased diversion of solid waste; sustainable design/high performance buildings; vehicle fleet management, including the use of alternative fuel vehicles and alternative fuels and further reduction of petroleum consumption; and electronics stewardship. DOE-LM has developed individual program plans to address these goals, which are summarized in Section 6.2 of this document and are fully described in the DOE-LM manual titled, *Environmental Management System Programs Manual* (LMS/POL/S04388).

4.3.3 DOE Order 430.2B

DOE Order 430.2B complements EO 13423 by providing more specific goals and objectives. The specific procedures related to how DOE-LM will achieve the mandated goals and objectives stated in the EO and in this order are contained in the *Environmental Management System Programs Manual* (LMS/POL/S04388).

4.3.4 DOE Order 450.1A

This order is the DOE environmental protection program. It incorporates the sustainability requirements of EO 13423 and DOE Order 430.2B and also incorporates requirements found within ISO 14001:2004 that relate to an organization's environmental program. Each EMS must have a formal audit by a qualified party outside the control or scope of the EMS every three years. Key EMS requirements include:

- A statement of the organization's commitment to the environment;
- The identification of the environmental attributes of products, activities, and services, setting environmental goals for the organization, and planning actions to achieve the objectives and targets;
- The identification, planning, and management of the organization's operations and activities in line with the policy, objectives and targets, and significant aspects;
- Establishing roles and responsibilities within the organization, which includes developing processes for internal and external communication on environmental management issues;
- Maintaining information about the EMS and related documents;
- Developing procedures for preventing and responding to potential emergencies;
- Monitoring key activities and tracking performance, including periodic compliance evaluation, keeping adequate records of EMS performance, and identifying and correcting problems and preventing recurrences;

- Identifying and ensuring access to relevant laws and regulations and periodically evaluating compliance with legal and other requirements;
- Periodically verifying that the EMS is effective and achieving objectives and targets and providing management review of the EMS;
- Site-specific goals and targets that contribute to the achievement of DOE Sustainable Environmental Stewardship goals and energy and transportation goals;
- Specified compliance management elements, including an environmental compliance audit program that identifies compliance needs and possible root causes of non-compliance.

4.3.5 TEAM Initiative

Secretary of Energy, Samuel W. Bodman, announced the TEAM Initiative in August 2007. The initiative affects all DOE departments and contains a requirement that all DOE facilities will attain and exceed the standards established in EO13423. The purpose of the initiative is to show DOE as the national leader in energy reduction and specifically as related to establishing sustainable building standards for new and existing buildings. Other goals include achieving no less than a 30% energy intensity reduction across the agency; maximizing installation of secure, on-site renewable energy projects at all DOE sites; requiring that DOE's entire fleet operate their alternative fuel vehicles exclusively on alternative fuels; baseline, implement and monitor a Departmental-wide plan to reduce water consumption at least 16%; strive to achieve Leadership for Environmental and Energy Design (LEED) Gold standard for all new construction and major renovation; and ensure the implementation of an enhanced and widely applied EMS to manage the environmental energy and transportation components of all our activities.

4.3.6 Prime Contractor

The Prime contractor maintains an environmental compliance manual, titled *Environmental Protection Manual* (LMS/POL/S04329) that provides summaries of commonly applicable federal acts, policies, or regulations that are considered during activity planning or assessment (e.g., Clean Water Act). The DOE-LM ISMS, which incorporates worker safety and health, is described in a separate manual (LMS/POL/S04328), titled *Integrated Safety Management System Description with Embedded Worker Safety and Health Program*; it is maintained by the Prime contractor and available at all DOE-LM sites. Environmental aspects include the consideration of the human and physical environment; worker health and safety are considered during all phases of the EMS.

For emergency management, the Prime contractor maintains a current manual titled: *Comprehensive Emergency Management System* (LMS/POL/S04326) that provides guidance and a plan for daily activities and emergency response.

This page intentionally left blank

5.0 Objectives and Targets

A fundamental element of the ISMS/EMS is the establishment of measurable environmental objectives and targets. Objectives and targets are based on the environmental policy, legal and other requirements, consideration of significant environmental aspects, stated goals and mission, and the views of affected stakeholders. (See example Table 2 [Example of Table Used to Establish Objectives and Targets from Aspects] in Appendix B).

Specific objectives and targets are developed based on the significant environmental aspects identified during the task order process and also include those that contribute to the achievement of the goals identified in EO 13423. The EMS provides the overall process to meet this requirement.

5.1 EMS Objectives

EMS objectives describe the goals for environmental performance and should be measurable. Some objectives are quantifiable, while others that cannot be quantified may still be measured quantitatively. For example, the objective to reduce pesticide usage by four percent in the first year is a quantified objective because the previous years' pesticide usage is known and there is a baseline against which improvement can be measured.

An objective to develop a plan to reduce the use of hazardous chemicals by 20 percent through the use of less hazardous substitutes is *measurable* even if it is not *quantifiable.*

5.2 EMS Targets

EMS targets are specific and measurable steps taken to obtain the objectives. Once objectives have been set, they may be divided into specific targets. For example, an objective may be identified to reduce pesticide use by 20 percent in two years. Targets for this objective may include reductions of pesticide usage by 10 percent in grounds maintenance and by 10 percent in facility pest control. When the objective is not quantified, targets can be used to provide performance measures by setting dates for completion of specific tasks. For example, if the objective is to develop a plan to reduce the use of hazardous chemicals by 20 percent through the use of less hazardous substitutes, the targets may define the completion date for this plan (i.e., within one year).

After objectives and targets have been established, the EMS core team and affected DOE-LM and Prime Contractor project managers will estimate the resource requirements needed to implement each target. This information will be captured in a summary table such as the one shown in Table 3, Appendix B, Example of Table Used to Calculate Resources.

The final task in formulating objectives and targets is for management to review and approve the descriptions of the objectives and targets and the resource estimates required to achieve these goals. Once management has approved the objectives, targets, and estimated resources, the EMS Core Team and as appropriate, the applicable Program Team (related to the EO 13423) is responsible for tracking and documenting the status/progress of objectives and targets at periodic intervals. Tracking may occur quarterly or on another appropriate basis.

At a minimum, objectives and targets shall be reviewed annually (i.e., prior to or when task orders are developed and negotiated) and updated as appropriate. Because objectives and targets are identified relative to environmental aspects, they are also influenced by the task order process. If task orders need to be modified to accommodate changes in the objectives and targets and other higher priorities are identified, it may be necessary to modify, adjust, or postpone the attainment of the objective.

6.0 Implementation of the EMS

This section describes the basic roles and responsibilities of both DOE-LM and contractor personnel as they apply to implementation of this EMS and the use of program teams to achieve the required sustainability goals identified in the EO 13423, DOE Orders 430.2B and 450.1A, and the TEAM Initiative. Additionally, this section also discusses training requirements and responsibilities in implementing the EMS, the development and implementation of operational controls, how DOE-LM and the contractor communicate relevant information to the workforce and the public, and the document control system.

Although DOE-LM and the contractor(s) are operating jointly under this EMS description, their respective roles and responsibilities with regard to implementation of the EMS are different. One of the primary differences between DOE-LM and the contractor is how work is administered and executed. DOE-LM's role is to approve, fund, and oversee work activities. This is primarily accomplished through the task order process (See Section 4.1.1). However, DOE-LM representatives are also present on the Core Team and participate in discussions related to objectives and targets.

6.1 Roles and Responsibilities

Although DOE-LM's primary functions are related to the administration, oversight, and monitoring of contractor activities, DOE-LM is also committed to the Plan, Do, Check, Act cycle of continual environmental improvement when conducting day-to-day business. DOE-LM and the contractor follow parallel paths with respect to implementing the elements of this EMS. DOE-LM is responsible for evaluating day-to-day activities to identify how their activities, products, and services interact with and impact the environment. The "continual improvement" objective of the Plan, Do, Check, Act cycle requires that DOE-LM conduct and manage their work activities in a manner that is energy efficient, minimizes the generation of wastes and pollution, and protects the environment and natural resources.

The contractor uses a balanced matrix approach whereby project and program managers plan their work through the task order process and budget their needs for personnel with specific expertise. Contractor organizations then assign qualified personnel to support specific projects and programs.

6.1.1 General—Management and Employees

DOE-LM and contractor management, their employees, and subcontractors are responsible for conducting all activities in compliance with federal, state, tribal, and local environmental laws, regulations, executive orders, and DOE orders. Compliance with environmental laws and regulations is essential to project and program success and will not be compromised. Furthermore, proper compliance minimizes risks and liabilities to DOE-LM and its contractors.

Consistent with this commitment to environmental protection, all workers have the right, responsibility, and authority to report environmentally unsound conditions or practices to DOE-LM or to contractor management and to stop work without fear of reprisal.

All employees are included in the DOE-LM EMS. An example table in Appendix D illustrates how functional and project groups interrelate with environmental responsibilities and are included in attaining overall DOE-LM and contractor goals and objectives. The EMS prescribes environmental responsibility for all employees.

6.1.2 DOE-LM and Contractor Management

DOE-LM and contractor management are responsible for integrating environmental management sustainability principles and regulatory requirements into project planning and execution in a consistent, efficient, and cost-effective manner. They also must provide and maintain a well-trained staff of professionals with diverse environmental compliance and regulatory experience to ensure compliance with environmental laws, regulations, and guidance.

6.1.3 DOE-LM EMS Coordinator

The DOE-LM EMS coordinator is the point-of-contact for the DOE-LM EMS organization and implementation. Responsibilities of the DOE-LM EMS coordinator include overseeing the development and implementation of the joint DOE-LM and contractor EMS; ensuring that adequate funding is available to support anticipated EMS activities (as identified in the appropriate task orders); actively participating in the EMS Core Team; reporting progress to DOE-LM management; and facilitating DOE-LM management involvement in the EMS.

6.1.4 Contractor EMS Coordinator

The contractor EMS coordinator is the point-of-contact for the contractor EMS. The responsibilities of the contractor coordinator include overseeing and implementing the joint DOE-LM and contractor EMS; reporting progress toward meeting objectives and targets to senior management; participating in the joint DOE/LM/Contractor Management Review Process; reporting EMS performance to contractor and DOE management, including recommended changes; and coordinating EMS Core Team meetings.

6.1.5 EMS Core Team

The EMS Core Team contains representatives from applicable programs and projects, management, and DOE-LM. Their responsibilities include oversight of the development and implementation of the EMS program teams related to EO 13423 (see Section 6.2); they approve objectives and targets for DOE-LM and contractor activities; and they function as the steering committee for management-level decisions.

The EMS Core Team and the program teams propose site-specific or programmatic objectives or targets that are developed in accordance with applicable orders and guidance.

6.1.6 Environmental Compliance

Maintaining compliance with all regulations and individual site requirements is inherent in the EMS process. DOE-LM is committed to achieving objectives and targets while complying with all applicable regulations. During planning phases for activities, including identification of

aspects, an environmental compliance specialist will review the proposed actions with site leads and task order managers to ensure compliance with applicable regulations.

6.1.7 DOE-LM and Prime Contractor Project/Program Management, Site Leads, and Line Management

The DOE-LM and Prime Contractor project or program management along with the site leads and line managers are responsible for implementing the EMS by conducting work in an environmentally safe and compliant manner. Their responsibilities include integrating EC, H&S, and QA organizations into their work planning and scoping process and participating in defining and updating significant environmental aspects and measurable objectives and targets. The use of a Project/Activity Evaluation checklist (provided in Appendix E) provides a structured and documented approach for cross-disciplinary review of proposed projects.

6.2 EMS Program Goal Implementation

In order to achieve the goals identified in EO 13423, DOE Order 430.2B, and DOE Order 450.1A, DOE-LM established individual program teams. EMS program teams consist of a team lead, a DOE-LM and senior management sponsor, and subject matter experts. The program team leads will occasionally meet as a group to raise and resolve issues that are common to all programs, exchange information, communicate new requirements or changes, and provide help as needed to individual program teams. They may be assigned other functions as appropriate by the EMS Core Team.

Each program team is responsible for managing and implementing their individual program. The nine program teams are briefly described below; more detailed information is found in the *Environmental Management System Programs Manual*.

6.2.1 Energy Efficiency and Greenhouse Gases—EMS Program # 1

The purpose of this program is to evaluate how to maintain and operate DOE-LM facilities in a resource-efficient, sustainable, and a cost-effective manner. It will establish a systematic approach to improve energy efficiency and to decrease greenhouse gas generation at DOE-LM sites.

6.2.2 Renewable Energy—EMS Program #2

This program will evaluate, make recommendations, and implement approved practices to increase renewable energy use at DOE-LM sites. The program will evaluate opportunities to install new cost effective, renewable energy sources that would replace existing power sources and evaluate the expanded use of utility-provided renewable energy programs.

6.2.3 Water Conservation—EMS Program #3

DOE-LM and the contractor will evaluate, make recommendations, and implement approved programs to maintain and operate its building and facilities in a manner that beneficially reduces water use, loss, and waste at DOE-LM sites. The program will strive to reduce water use intensity annually. Water efficiency initiatives may include using conservation technology and

devices, using improved design and process implementation, and encouraging behavioral change.

6.2.4 Environmentally Preferable Purchasing—EMS Program #4

This program will establish a process to evaluate the procurement of goods and services for DOE-LM using the U.S. Environmental Protection Agency guidance on the acquisition of environmentally preferable products and services, including the acquisition of biobased, environmentally preferable, energy-efficient, water efficient, and recycled content products.

6.2.5 Waste Minimization and Pollution Prevention—EMS Program #5

The purpose of this program is to develop processes to prevent or reduce pollution at the source, minimize waste, and institute recycling by using less toxic or nontoxic products, using recycled content products, and implementing waste prevention and recycling programs.

6.2.6 Sustainable Buildings—EMS Program #6

This program will evaluate how to locate, design, construct, maintain, and operate its buildings and facilities in a resource-efficient, sustainable, and economically viable manner, consistent with its mission. The program will provide a process to evaluate sustainable building practices for new construction, major renovation, and existing capital asset building in accordance with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings.

6.2.7 Vehicle and Fuel Use—EMS Program # 7

This program will evaluate the vehicle and fuel use goals included in EO 13423, establish metrics, and develop and implement a plan of action to meet these goals. These goals may include increasing purchases of alternative fuel, hybrid, and plug-in hybrid vehicles (when they are commercially available) and reducing petroleum consumption in fleet vehicles.

6.2.8 Electronic Stewardship—EMS Program # 8

The electronic stewardship program will use a life-cycle approach to reduce the negative environmental impacts posed by electronic equipment. A process will be established that evaluates beneficial acquisition, use, and disposition of electronic equipment.

6.2.9 Land Stewardship—EMS Program # 9

The land stewardship program advocates improving ecosystem health on DOE-LM properties in accordance with DOE Order 450.1A, DOE Policy 430.1, and general federal regulations such as the Endangered Species Act. The program provides a process to systematically evaluate and assess existing ecological site surface conditions and trends; identify and propose improvements that would be beneficial on a landscape ecosystem scale; and implement improvements with consideration of adjacent land users, owners, and political entities.

6.3 Training Awareness and Competence

EMS training is provided to ensure that all employees possess the knowledge and skills necessary to perform their jobs in a safe, effective, and environmentally responsible manner; comply with federal, state, and local environmental laws, regulations, and permits and company requirements and policies; increase their awareness of environmental protection practices and pollution prevention/waste minimization opportunities; and take appropriate actions in the event of an emergency. EMS training records are maintained in accordance with the *Training Manual*, (LMS/POL/S04323).

Two types of training are required under this EMS: General EMS awareness and competence training.

6.3.1 EMS Awareness Training

EMS Awareness Training is required training for all contractor and DOE-LM employees and is developed and administered cooperatively through the contractor training coordinator and the EMS management representative. EMS Awareness Training focuses on why an EMS is required, the Environmental Policy Statement, and the role and responsibilities of each employee with respect to conducting their work activities in compliance with this policy.

6.3.2 Competence Training

Competence training is provided to employees whose work activities have the potential to significantly impact the environment. Examples of job assignments that could significantly impact the environment and that would be subject to this additional, specialized training include employees who are engaged in handling or use of hazardous chemicals, management and/or treatment of hazardous wastes, excavation or construction related activities, etc. This specialized training is focused on identifying the potential environmental impacts that could occur as a result of employee negligence or an accident, and the operational controls that are in place (or needed) to prevent negative impacts from occurring.

6.4 Communication

Integrated environmental management demands effective communications to coordinate staff internally and to maintain open, clear lines of communication with external stakeholders. With respect to DOE-LM's mission and goals, DOE-LM and the contractor are committed to communicating environmental information to its employees and the public, as well as receiving input from employees and external stakeholders. DOE-LM is also committed to fully disclosing environmental issues to applicable regulatory agencies and working with these agencies to remedy any deficient or non-compliant conditions that may arise. This section describes the programs and mechanisms whereby DOE-LM communicates its EMS, environmental program activities, community outreach initiatives, etc. to employees and external stakeholders.

6.4.1 Internal Communications

Various forms of internal communications are used to maintain employee awareness of EMS initiatives, communicate their roles and responsibilities, and motivate employees. The primary tools used for internal communications include:

- The EMS webpage located on the contractor information page of the DOE-LM portal (https://lmportal.lm.doe.gov/portal/server.pt/gateway/PTARGS_0_0_686_225_0_43/http%3B/ash.gjo.doe.gov/remotegadgets/lmintranet/lm_contractor/departments/ems/ems.htm). This webpage lists EMS programs and associated team members and the EMS Core Team members. This webpage also provides links to the EMS mission statement and several informational pieces.
- An annual EMS communication campaign will be developed and implemented to maximize the impact of exposure of the overall program to the DOE-LM and contractor staff.
- Posters, brochures, presentations, displays, and other visual communications will be developed and issued through the DOE-LM and contractor EMS coordinators.
- EMS training curriculum (both general awareness and competence training). The computer-based training required for all contractor employees is an effective and efficient tool for informing employees about EMS requirements.
- Special presentations conducted at all-hands meetings or through videoconferencing.
- Special attention through use of e-mails, posters, or other media will ensure that EMS goals and progress are continually communicated to the DOE-LM and contractor staff.

Effective communication is a two-way process. Employees may report environmental issues or concerns through their immediate supervisor or they may contact the EMS management representative directly. DOE-LM and its contractors are committed to receiving, evaluating, and responding to all comments, concerns, and recommendations.

6.4.2 External Communications

DOE-LM is committed to openly communicating with and soliciting feedback from the public, stakeholders, and other interested parties such as news media, regulatory agencies, and other governmental entities. DOE-LM facilitates two-way communication and interaction with the public and solicits ideas and suggestions regarding its EMS, its significant environmental aspects, and its work activities. Additional information is available on the EMS webpage on DOE-LM's website (http://www.lm.doe.gov/ems/ems.htm). Annual site environmental reports, which discuss environmental management performance and communicate environmental monitoring and radiological exposure data to the public, are prepared and distributed for some sites.

6.5 EMS Documentation

Maintaining proper documentation of DOE-LM's EMS provides information to interested external parties about how the EMS was designed and implemented. This information enables external parties such as regulators, potential customers, and stakeholders to understand the

processes and operational controls whereby DOE-LM manages the work and mitigates environmental impacts.

6.6 Documents

6.6.1 General

Controlling the issue, access, and revision of DOE-LM's EMS documentation ensures that each employee has up-to-date documents. Recommendations for changes to the documents are made directly to EC, which is responsible for the document. Revisions to the *Environmental Management System Programs Manual* or to this EMS description will be done as needed to reflect any changes in orders, policies, or 'lessons learned'.

6.6.2 Prime Contractor

EMS-generated documents are controlled by established procedures (*Functions, Responsibilities, and Authorities Manual* [LMS/POL/S04319]) and the *Quality Assurance Manual*, (LMS/POL/S04320). The documents controlled by the Prime Contractor include Level 1) Functions Responsibilities, and Authorities Manual (FRAM); Level 2) LMS Programmatic Plans and Procedures; Level 3) LMS Functional Procedures and Plans; and Level 4) Site Specific Plans and Procedures. Community Relations, Publication Services, and QA maintain current lists of controlled documents and information about the documents (title, date, owner, location, etc.) in a document database.

This page intentionally left blank

7.0 Checking and Corrective Action

Monitoring and measuring targets and objectives, performing internal assessments, resolving nonconformances, and conducting preventive and corrective actions are part of the "check" and "act" steps of the Plan, Do, Check, and Act cycle of continual improvement.

Actions are appropriately tracked to closure by the organization identifying a deficiency. Nonconformance reports, corrective action reports, internal independent assessments, surveillances, management assessments, and external assessments are tracked to closure.

7.1 Monitoring and Measurement

EC maintains a list of the current objectives and targets, tracks the progress toward the targets, and reports the status to DOE-LM and Prime Contractor management periodically. The achievement of target performance will be evaluated periodically by the EMS Core Team and annually during the Management Review.

7.2 Procedures for Evaluation of Compliance

Compliance with legal requirements applicable to the defined environmental aspects is integrated with other management assessments, independent internal assessments, and surveillances. These activities are conducted according to an annual schedule maintained by the group responsible for performing the activity. Planning remains flexible to allow for response to special requests, past performance, and changes in work scope, as well as to allow the monitoring activities to provide the most useful information to management. Changes to the schedule are communicated to senior management.

The scope and purpose of each of these events is determined in advance through consultation between project management and the organization performing the activity.

Management assessments are self-assessments and can be performed by those responsible for the work. Qualified assessment personnel independent of the work perform internal assessments and surveillances. The policy and procedures are defined in the *Quality Assurance Manual*.

All these assessment activities are documented in the Corrective Action Tracking System Database (CATS). Any corrective actions identified through assessment activities are tracked in the CATS until completion. QA routinely reports to management on the status of corrective actions.

7.3 Records

EMS records will show proof of conformance to requirements. The records will be traceable, legible, and retrievable. Standard protocols are defined in the *Records Management Manual* (LMS/POL/S04327).

EMS records will be maintained by the issuing organization according to established protocols. Records include this EMS description, records of review, records of distribution and control, targets and objectives, reports to management, assessment report packages, and other

information. Records of operational controls and for site-specific activities will be maintained as defined in related site-specific records indexes.

7.4 Nonconformance, Corrective, and Preventive Action

Identification of nonconformance, corrective action, or preventive action situations allows proper analysis, mitigation of impacts, correction of specific instances, and prevention of similar instances. Types of nonconformances that may affect the environment include:

- Audit findings
- Accidents
- Emergencies
- Regulatory noncompliances
- Negative performance trend
- Subcontractor not meeting requirements

Nonconformance reports and response to corrective actions will be conducted as specified in *Quality Assurance Manual*. Following completion of any identified correctives actions, an independent evaluation will be performed prior to closure. Preventive action should be practiced in all elements of work activities. Personnel have the responsibility and authority to identify and correct potential nonconformances in the course of their work.

7.5 EMS Audit

The EMS will be audited annually by DOE-LM and/or contractor staff. Auditor qualification, knowledge of EMS requirements, independence, and ethics are required for all audit team members. Independence in performing audits will be accomplished by use of a third-party subcontractor, DOE-HQ, Stoller Corporate, or others who have not been involved in the design of the EMS. These types of audits are considered ‘independent assessments’ in the CATS. Any findings from these activities will be entered into the CATS database and corrective actions identified through audit or independent assessment activities are tracked in CATS until completion.

Conditions, including findings, conclusions, and recommendations identified as a result of assessments, are documented in a report and the necessary corrective and preventive actions identified. Responsibility and authority for addressing non-conformances found in the EMS and for implementing the actions to mitigate any adverse impacts will be specified in the report. The reports will be shared with DOE-LM and the Prime Contractor management. Findings identified in the reports and resulting corrective actions will be tracked to closure by the audit team. Audits are approved and signed by DOE-LM and the Prime Contractor senior management.

Periodic audits will be conducted to ensure that management systems are being maintained and implemented and recertified in accordance set for in DOE O 450.1A. Requirements of the EMS and implementation of the requirements will be evaluated during these audits. The audits are conducted according to established schedules and procedures.

8.0 Management Review

The annual management review of the EMS will determine if the EMS is achieving the desired level of environmental performance. This activity falls under the "Act" step of the Plan, Do, Check, and Act cycle.

8.1 Management Review

The EMS coordinators will compile information on the status of the EMS goals and initiatives, programs, and relevant changes to applicable orders. This information is presented to management for review. Information sources may include any of the following that are related to the EMS during the last fiscal year:

- The processes used to determine the projects' aspects, significant aspects, legal and other requirements, and objectives and targets;
- The level of success towards achieving the objectives and targets;
- Previous discussions with members of senior management relative to the success, direction, etc. of the EMS;
- After action reports from environmental incidents and/or exercises;
- Results of the previous EMS audits and compliance evaluations;
- Gap analysis against all new DOE orders or applicable regulations; and
- Status of corrective and preventive actions.

The Management Review Team consists of DOE-LM and contractor top management and others as appropriate. They will make recommendations if needed to ensure that the system achieves the desired level of environmental performance.

8.2 Updating the EMS

The EMS will be reviewed annually by the EC manager and EMS lead and updated as needed. EMS revisions follow the same review, approval, documentation, electronic posting, and distribution requirements as the original EMS. The annual review will also consider assessments, nonconformities, and associated corrective actions when making revisions to the EMS. DOE and contractor employees will be notified when the EMS is revised.

This page intentionally left blank

9.0 Definitions

Activities, Products, and Services—A phrase referring to all of the elements at a facility or organization that can interact with the environment.

Audit—Synonymous with assessment.

Continual Improvement—The process of enhancing the EMS to achieve improvements in overall environmental performance in accordance with the organization's environmental policy.

Contractor—An organization or entity that is performing work for DOE according to the terms and conditions of a formal, binding contract.

Corrective Action—Measures taken to reduce or eliminate conditions adverse to quality and, where necessary, to prevent recurrence.

Corrective Action Tracking System (CATS)—A database used to maintain and track corrective actions resulting from surveillances, nonconformances, and assessments.

Deficiency—A deviation from a written requirement.

DOE-LM—The U.S. Department of Energy, Office of Legacy Management.

EMS Audit—A systematic and documented verification process of objectively obtaining and evaluating evidence to determine whether an organization's EMS conforms to the EMS audit criteria set by the organization, and for communication of the results of this process to management.

Environment—Surroundings in which an organization operates, including the physical environment (e.g., air, water, land, natural resources, cultural resources), the human environment, and their interrelationships.

Environmental Aspect—Elements of an organization's activities, products, or services that interact with the environment. The environmental aspect of an activity is that part of it that creates a possibility for an environmental impact. As such, it is equivalent to the concept of "hazard" in safety, which is also defined as the mere possibility of a negative event.

Environmental Impact—A change to the environment, whether adverse or beneficial, resulting from an organization's activities, products, or services.

Environmental Management System (EMS)—An EMS is a systematic approach to managing an organization's environmental concerns. The expected outcome is continual improvement in environmental performance.

Environmental Monitoring—The collection and analysis of samples or direct measurement of environmental media.

Environmental Objective—An overall environmental goal, associated with the stated environmental policy.

Environmental Performance—Measurable results of the EMS, related to an organization's control of its environmental aspects, based on its environmental policy, objectives, and targets.

Environmental Policy—A statement by the organization of its intentions and principles in relation to its overall environmental performance, which provides a framework for action and for the setting of its environmental objectives and targets.

Environmental Surveillance—The collection and analysis of samples, or direct measurements, of air, water, soil, biota, or other media from DOE sites for the purpose of determining compliance with applicable standards and permit requirements, assessing radiation exposures of members of the public, and assessing the effects, if any, on the environment.

Environmental Target—A detailed performance requirement, quantified where practicable, and applicable to the organization or parts thereof, which arises from the environmental objectives, and which needs to be established and met to achieve those objectives.

Finding—A statement of fact relating to compliance or noncompliance with previously agreed-upon procedures, policies, plans, codes, standards, specifications, or other forms of contractual or legal obligation. Findings should be supported by specific examples.

Independent Assessment—An assessment performed by a qualified individual, group, or organization that is not directly responsible for the work being assessed. Synonymous with independent audit.

Integrated Safety Management System—A DOE management system that provides a formal, organized process whereby people plan, perform, assess, and improve the safe conduct of work efficiently and in a manner that ensures protection of workers, the public, and the environment. This management system shall be used to systematically integrate safety into management and work practices at all levels so that missions are accomplished while protecting the public, worker, and the environment.

ISO 14001 Standard—Internationally recognized voluntary EMS standard that provides organizations with the elements of an effective EMS that can be integrated with other management requirements to help organizations to achieve environmental and economic goals.

Management Assessment—An evaluation process used to identify organizational strengths and weaknesses through existing information. For management assessment to be successful, managers must involve themselves by personally leading (i.e., planning and performing) the assessment in order to influence the achievement of their organizational missions, objectives, and quality results directly.

Office of Legacy Management—An element of DOE tasked with managing the agency's post-closure responsibilities for legacy land, structures, and facilities and with ensuring the future protection of human health and the environment. DOE-LM consists of the Office of Policy and

Program Management, the Office of Business Operations (LM-10), and the Office of Site Operations (LM-20).

Operational Controls—Procedures that help an organization to implement and achieve its environmental policy, objectives, and targets.

Plan, Do, Check, Act—Based on the ISO 14001 EMS model, this is a cycle of continuous planning, implementing, evaluating, and improving work processes.

Project Management—Any management level within the organization, including contractor management, that is responsible and accountable for directing and conducting work.

Senior Management—The level of management that has authority to make decisions for the site/facility.

Task Order—A contract between DOE and the contractor to perform a specific scope of work within a specific schedule and budget.

This page intentionally left blank

10.0 References

Clean Water Act (Federal Water Pollution Control Act), 33 U.S.C. 1251 et seq., as amended.

Comprehensive Emergency Management System, LMS/POL/S04326, continually updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

Conduct of Operations Manual, LMS/POL/S04374, continually updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

DOE Guide 450.1-2. *Implementation Guide for Integrating Environmental Management Systems into Integrated Safety Management Systems*, August 20, 2004.

DOE Guide 450.1-5. *Implementation Guide for Integrating Pollution Prevention into Environmental Management Systems*, May 27, 2005.

DOE Order 430.2B. *Departmental Energy, Renewable Energy and Transportation Management*, February 27, 2008.

DOE Order 450.1A, *Environmental Protection Program*, June 4, 2008.

DOE Policy 430.1, *Land and Facility Use Planning*, July 9, 1996.

DOE Policy 450.4. *Safety Management System Policy*, October 15, 1996.

DOE-LM (U.S. Department of Energy Office of Legacy Management), 2007. *Federal Energy Management Program: Water Efficiency*. http://www1.eere.energy.gov/femp/water/index.html, accessed July 14, 2008.

Environmental Management System Programs Manual, LMS/POL/S04388, continually updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

Environmental Protection Manual, LMS/POL/S04329, continually updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

Executive Order 13423. *Strengthening Federal Environmental, Energy, and Transportation Management*, January 24, 2007.

Functions, Responsibilities, and Authorities Manual (FRAM), LMS/POL/S04319, continually updated, prepared by the S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

Health and Safety Manual, LMS/POL/S04321, continually updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

Integrated Safety Management System Description with Embedded Worker Safety and Health Program, LMS/POL/S04328, continually updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

International Organization for Standardization (ISO) 14001. *Environmental Management Systems—Requirements with Guidance for Use*, Second Edition, November 15, 2004.

LM Policy 450.1, *Environmental Safety and Health Policy*, August 29, 2005.

LMS Contractor Workflow diagram, Program Manager Directive PM-08-02

Quality Assurance Manual, LMS/POL/S04320, continually updated, prepared by the S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

Records Management Manual, LMS/POL/S04327, continually updated, prepared by the S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

Training Manual, LMS/POL/S04323, continually updated, prepared by the S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

Appendix A

DOE-LM Policy 450.1
Environmental Safety and Health Policy

This page intentionally left blank

LMF 251.1-2
05/2004, OPI = LM–10
Previous Editions Obsolete

U.S. Department of Energy
Office of Legacy Management

POLICY

LM P 450.1

Approved: 8-29-05

SUBJECT: ENVIRONMENTAL SAFETY AND HEALTH POLICY

OBJECTIVE: To establish the Office of Legacy Management's (LM) policy on environment, safety and health (ES&H) issues according to DOE Order 411.1, "Safety Management Functions Responsibilities and Authorization Policy," and DOE Order 450.1, change 1 "Environmental Protection Program."

POLICY: LM will make ES&H an integral part of our work. LM will follow safe and environmentally sound practices in the conduct of its work for the benefit of our employees, visitors, the public, and the environment. It is our policy to protect Government property against accidental loss and damage; assure compliance with regulatory standards applicable to all phases of operations; and require Office Directors to be responsible for effective ES&H performance in their programs.

LM will systematically and fully integrate ES&H considerations into management and work practices at all levels so that the mission of LM is successfully accomplished while protecting the public, the worker and the environment. LM operations will be conducted in compliance with applicable Federal, state, and local regulatory requirements, DOE directives, and in a manner consistent with the hazards and environmental risks associated with the work. Work processes will be continuously evaluated through an ongoing self-assessment program designed to ensure that the mission of LM is carried out in a safe and environmentally effective manner.

LM will maintain an Environmental Management System, which is built upon DOE's Integrated Safety Management System's Guiding Principles and Core Functions.

LM will work to continually improve our Environmental Management System, with the goal of increased environmental, safety, and health performance. Performance will be measured against objectives and targets stated in the Environmental Management System.

We will objectively and fully communicate ES&H information to LM employees, to contractor personnel, to research associates, to LM stakeholders and to the public.

Michael W. Owen
Director
Office of Legacy Management

This page intentionally left blank

Appendix B

Examples of Tables Used to Score Aspects, Develop Objectives, and Evaluate Resource Needs

This page intentionally left blank

Table B−1. Example of Table Used to Score Environmental Aspects for Work Activities

Significant Environmental Aspects[a]	Activities/Products/ Services	Impacts	Reg. Score	Env. Score	Mission Score	Likeli hood Score	Overall Score	Significance based on Overall Score Regulatory Score Mission Score
Fuel Consumption (gasoline, diesel, E-85, heating oil)	• Travel to and from office (essential work activities) • Travel to and from remote sites (essential work activities) • Travel to and from training locations • Relocating records	• Depletion of natural resources • Automotive air emissions • Waste generation • Employee accident/injury and property damage						
Energy Consumption (electricity, natural gas, steam, propane)	• Heating/Cooling • Lights and equipment • Renewable Energy • Ongoing operations	• Depletion of natural resources • Higher utility bills • Decrease in grid usage						
Waste Generation (solid, hazardous, radioactive, mixed, and/or universal)	• Treating, storing, and disposal of waste • Disposition of excess materials or equipment • Preparation of reports/documents • General office work • Use of faxes, copiers, business machines • Cleaning/maintaining office space • Sampling activities	• Depletion of natural resources • Impacts to local landfill space • Solid waste generation						
Air Emissions (includes fugitive dust)	• Using and storing chemical products • Maintaining and servicing refrigeration and air conditioning equipment • Dust and smoke from heavy equipment • Open burning	• General reduction in air quality, and potential human, ecological and habitat effects. • Noncompliance with applicable laws and regulations						

Table B−1 (continued). Example of Table Used to Score Environmental Aspects for Work Activities

Significant Environmental Aspects[a]	Activities/Products/ Services	Impacts	Reg. Score	Env. Score	Mission Score	Likeli hood Score	Overall Score	Significance based on Overall Score Regulatory Score Mission Score
Releases to surface water, wastewater, and/or groundwater	• Leaks, spills, and releases • Pesticide/insecticide application • Herbicide application	• Runoff to local rivers and streams with species, habitat, and fisheries impacts. • Leaching to aquifers and biota • Noncompliance with applicable laws and regulations						
Disturbance of Cultural/Historical Resources	• Construction or modification of facilities, processes or equipment • Conducting open burning	• Ecological damage, or culturally and historically significant artifacts. • Noncompliance with applicable laws and regulations						
Natural Resources	• Reports/document production • Preparing statements of work • Purchasing recycled content paper • Recycling paper, plastic, and aluminum	• Depletion of natural resources • Impacts to local landfill space • Reduction in use of natural resources						
Radiation Work	• Cleanup of contaminated sites • Shipment of radioactive materials • Decontamination of equipment or facilities.	• Exposure to personnel • Contamination of surrounding areas • Generation of radioactive waste						
Disturbances of Ecological resources	• Construction/remediation activities • Well installation	• Degradation of flora/fauna • Harm to habitats						
Noise Generation	• Construction • Maintenance • Mowing	• Disturbance to neighbors • Hearing loss						

[a]Aspect: element of an activity that can relate with environment – similar to hazard.

Key to Scoring:

Degree of Regulation:	1 = Not Regulated	3 = Somewhat Regulated	5 = Stringently Regulated
Severity of Consequences:	1 = Insignificant	3 = Moderate	5 = Severe/Catastrophic
Impacts to Mission:	1 = Insignificant Impacts	3 = Moderate Restrictions/Impacts	5 = Unable to accomplish mission
Likelihood of Occurrence:	1 = Rarely	3 = Occasionally	5 = Very Frequently

Note: Scores will range from 1 to 5.

Overall Score = (Environmental consequence × likelihood) + (Mission consequence × likelihood) + Regulatory Score

Table B−2. Example of Table Used to Establish Objectives and Targets from Aspects

Significant Environmental Aspects	Activities/Products/Services	Impacts (Environment/Worker Health and Safety)	Objectives	Targets
Fuel Consumption	• Travel to and from office (essential work activities) • Travel to and from remote sites (essential work activities) • Travel to and from training locations	• Depletion of natural resources • Automotive air emissions • Waste generation • Employee accident/injury and property damage	• Determine transportation needs, and then optimize usage. • Ensure efficient use of GSA vehicles. • Minimize employee accidents and injuries • Minimize property damage to GSA vehicles. • Reduce Health and Safety incidents (Occurrence Reports) • Increase use of bio or diesel fuel.	• Perform analysis of vehicle usage to ensure that existing vehicle mix is appropriate for work activities. • Investigate 4 day work week option • Investigate option to work from home 1 day a week. • Promote “Virtual Office” concept • Make greater use of online training courses. • Make greater use of tele- or video conferencing.
Energy Consumption	• Heating/Cooling • Lights and equipment • Renewable Energy	• Depletion of natural resources • Higher utility bills	• Reduce grid footprint • Reduce amount of electricity being used.	• Increase purchase of renewable energy • Investigate installation of on-site renewable energy project • Purchase EPP equipment (Energy Star, EPEAT tool, EcoLogo, etc.) • Initiate computer and monitor power management programs.
Waste Generation	• Treating, storing, and disposal of waste • Disposition of excess materials or equipment • Preparation of reports/documents • General office work • Use of faxes, copiers, business machines • Cleaning/maintaining office space • Sampling activities	• Depletion of natural resources • Impacts to local landfill space • Solid waste generation	• Reduce amount of solid waste sent to landfills • Improve reporting processes and make greater use of electronic capabilities. • Move towards a “paper-less” work environment • Promote “Virtual Office” concept • Make greater use of tele- or video conferencing	• Conduct Pollution Prevention Opportunity Assessments (PPOA) • Increase recycling efforts • Develop plan/process to make greater use of electronic capabilities in the following tasks: 1) Task Order Requests, Plans, and Modifications; 2) Invoices; 3) Monthly and Quarterly Status Reports; and, 4) Prime Contract Modifications

Table B−2 (continued). Example of Table Used to Establish Objectives and Targets from Aspects

Significant Environmental Aspects	Activities/Products/Services	Impacts (Environment/Worker Health and Safety)	Objectives	Targets
Air Emissions	• Using and storing chemical products • Maintaining and servicing refrigeration and air conditioning equipment	• General reduction in air quality, and potential human, ecological and habitat effects. • Noncompliance with applicable laws and regulations	• Reduce air emissions • Reduce number of violations for non compliance	• Conduct Pollution Prevention Opportunity Assessments (PPOA)
Releases to surface water, wastewater, and/or groundwater	• Leaks, spills, and releases • Pesticide/insecticide application • Herbicide application	• Runoff to local rivers and streams with species, habitat, and fisheries impacts. • Leaching to aquifers and biota • Noncompliance with applicable laws and regulations	• Reduce amount of harmful materials released to local rivers and streams.	• Purchase green pesticides/insecticides • Purchase green herbicides
Disturbance of Cultural/Historical Resources	• Construction or modification of facilities, processes or equipment • Conducting open burning	• Ecological damage, damage or culturally and historically significant artifacts. • Noncompliance with applicable laws and regulations	• Ensure that cultural and historical preservation training is available	• Prepare training program.

Table B−3. Example of Table Used to Calculate Resources

Significant Aspects	Activities/ Products/ Services	Impacts	Objectives	Targets	Resource (Estimated FTEs)	Task Order Modification Needed?
Fuel Consumption	• Travel to and from office (essential work activities) • Travel to and from remote sites (essential work activities) • Travel to and from training locations	• Depletion of natural resources • Automotive air emissions • Waste generation • Employee accident/injury and property damage	• Determine transportation needs, and then optimize usage. • Ensure efficient use of GSA vehicles. • Minimize employee accidents and injuries • Minimize property damage to GSA vehicles. • Reduce Health and Safety incidents (Occurrence Reports) • Increase use of bio or diesel fuel.	• Perform analysis of vehicle usage to ensure that existing vehicle mix is appropriate for work activities. • Investigate 4 day work week option • Investigate option to work from home 1 day a week. • Promote “Virtual Office” concept • Make greater use of online training courses. • Make greater use of tele- or video conferencing.		
Energy Consumption	• Heating/Cooling • Lights and equipment • Renewable Energy	• Depletion of natural resources • Higher utility bills	• Reduce grid footprint • Reduce amount of electricity being used.	• Increase purchase of renewable energy • Investigate installation of on-site renewable energy project • Purchase EPP equipment (Energy Star, EPEAT tool, EcoLogo, etc.) • Initiate computer and monitor power management programs.		
Waste Generation	• Treating, storing, and disposal of waste • Disposition of excess materials or equipment • Preparation of reports/documents • General office work • Use of faxes, copiers, business machines • Cleaning/maintaining office space • Sampling activities	• Depletion of natural resources • Impacts to local landfill space • Solid waste generation	• Reduce amount of solid waste sent to landfills • Improve reporting processes and make greater use of electronic capabilities. • Move towards a “paper-less” work environment • Promote “Virtual Office” concept • Make greater use of tele-video conferencing	• Conduct Pollution Prevention Opportunity Assessments (PPOA) • Increase recycling efforts • Develop plan/process to make greater use of electronic capabilities in the following tasks: 1) Task Order Requests, Plans, and Mods; 2) Invoices; 3) Monthly and Quarterly Status Reports; and, 4) Prime Contract Mods		

Table B−3 (continued). Example of Table Used to Calculate Resources

Significant Aspects	Activities/ Products/ Services	Impacts	Objectives	Targets	Resource (Estimated FTEs)	Task Order Modification Needed?
Air Emissions	• Using and storing chemical products • Maintaining and servicing refrigeration and air conditioning equipment	• Gen'l reduction in air quality, potential human, ecological, habitat effects. • Noncompliance with applicable laws and regulations	• Reduce air emissions • Reduce number of violations for non compliance	• Conduct Pollution Prevention Opportunity Assessments (PPOA)		
Releases to surface water, wastewater, and/or groundwater	• Leaks, spills, and releases • Pesticide/insecticide application • Herbicide application	• Runoff to local rivers and streams with species, habitat, fisheries impacts. • Leaching to aquifers and biota • Noncompliance with applicable laws and regulations	• Reduce amount of harmful materials released to local rivers and streams.	• Purchase green pesticides/insecticides • Purchase green herbicides		
Disturbance of Cultural/Historical Resources	• Construction or modification of facilities, processes or equipment • Conduct burn	• Ecological damage, or culturally and historically significant artifacts. • Noncompliance with applicable laws and regulations	• Ensure that cultural and historical preservation training is available	• Prepare training program.		

Appendix C

Lists of Orders, Laws, and Regulations Applicable to DOE-LM Environmental Management Systems

This page intentionally left blank

Lists of Orders and Regulations Applicable to the DOE-LM EMS[a]

DOE Orders	**Subject**
DOE P 430.1	Land and Facility Use Planning 07-09-96
DOE O 430.2B	Renewable Energy and Transportation Management 02-27-08
DOE O 450.1A	Environmental Protection Program 06-04-08
DOE O 450.1-1A	Implementation Guide for Use with DOE O 450.1, Environmental Protection Program 10-24-05
DOE G 450.1-2	Implementation Guide for Integrating Environmental Management Systems into Integrated Safety Management systems 08-20-04
DOE G 450.1-3	Environmental Guidelines for Development of Cultural Resource Management Plans 09-22-04
DOE G 450.1-4	Implementation Guide, Wildland Fire Management Program for use with DOE O 450.1 Environmental Protection Program 02-11-04
DOE G 450.1-5	Implementation Guide for Integrating Pollution Prevention into Environmental Management Systems 05-27-2005
DOE G 450.1-9	Groundwater Protection Programs Implementation Guide for use with DOE O 450.1, Environmental Protection Program 05-05-05
DOE P 450.4	Safety Management System Policy 10-15-96
DOE M 450.4-1	Integrated Safety Management System Manual 11-01-06
DOE O 451.1B	National Environmental Policy Act Compliance Program 09-28-01
DOE O 1230.2	American Indian Tribal Government Policy 04-08-92
DOE O 5400.5	Radiation Protection of the Public and the Environment 02-08-90
DOE O 5530.3	Radiological Assistance Program 01-14-92
Public Laws	**Title**
PL 102-486	Energy Policy Act of 1992
7 U.S.C. 136	The Federal Insecticide, Fungicide and Rodenticide Act of 1972
7 U.S.C. 4201 et seq.	Farmland Protection Policy Act of 1981
15 U.S.C. 2601 et seq.	The Toxic Substances Control Act of 1976
16 U.S.C. 470 et seq.	National Historic Preservation Act of 1966
16 U.S.C. 470aa-mm	Archaeological Resource Protection Act of 1979
16 U.S.C 703 et seq.	Migratory Bird Treaty Act of 1918
16 U.S.C 1271-1278 et seq.	Wild and Scenic Rivers Act of 1968
16 U.S.C. 1531 et seq.	The Endangered Species Act of 1973
25 U.S.C. 3008, et seq.	Native American Graves Protection and Repatriation Act of 1990
33 U.S.C. 1251 et seq.	The Clean Water Act of 1977
33 U.S.C. 2705 et seq.	The Oil Pollution Act of 1990
42 U.S.C. 300 et seq.	The Safe Drinking Water Act of 1974
42 U.S.C. 2011 et seq.	Atomic Energy Act of 1954
42 U.S.C. 2021	The Low-Level Radioactive Waste Policy Act
42 U.S.C. 4321 et seq.	The National Environmental Policy Act of 1969
42 U.S.C. 6201 et seq.	Energy Policy and Conservation Act
42 U.S.C. 6901 et seq.	The Resource Conservation and Recovery Act of 1976
42 U.S.C. 7401 et seq.	The Clean Air Amendments of 1977
42 U.S.C. 7901	Uranium Mill Tailings Radiation Control Act of 1978
42 U.S.C. s/s 9601	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
42 U.S.C.9601 et seq.	The Superfund Amendments and Reauthorization Act of 1986
42 U.S.C. 10101 et seq.	Nuclear Waste Policy Act of 1982
42 U.S.C. 11001 et seq.	The Emergency Planning & Community Right-To-Know Act of 1986
42 U.S.C. 13101 et seq.	Pollution Prevention Act of 1990

Lists of Orders and Regulations Applicable to the DOE-LM EMS[a] (continued)

Code of Federal Regulations	
Title 10—Energy	
Chapter I	Nuclear Regulatory Commission
Part 20	Standards for Protection Against Radiation
Chapter III	Department of Energy
Part 707	Workplace substance abuse programs at DOE sites
Part 708	DOE contractor employee protection program
Part 745	Protection of human subjects
Part 781	DOE patent licensing regulations
Part 783	Waiver of patent rights
Part 830	Nuclear Safety Management
Part 835	Occupational Radiation Protection
Part 962	Byproduct material
Chapter X	Department of Energy (General Provisions)
Part 1021	National Environmental Policy Act Implementing Procedures
Part 1022	Compliance with floodplains/Wetlands
Title 36—Parks, Forests, and Public Property	
Chapter VIII	Advisory council on historic preservation
Part 800	Protection of historic and cultural properties
Chapter XII	National Archives and Records Administration
Part 1220	Federal Records; general
Part 1222	Creation and maintenance of federal records
Part 1228	Disposition of Federal records
Part 1234	Electronic records management
Part 1236	Management of vital records
Title 40—Protection of Environment	
Chapter I	Environmental Protection Agency
Parts 0-99	Clean Air Act
Parts 100-149	Clean Water Act
Parts 190-399	Solid Waste Act
Part 192	Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings
Part 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
Part 265	Interim Status Standard for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
Part 300	National Oil and Hazardous Substances Pollution Contingency Plan
Part 430	CERCLA National Contingency Plan
Part 761	Toxic Substance Control Act
Title 43—Public Lands: Interior	
Part 7	Protection of Archeological Resources
Title 44—Emergency Management and Assistance	
Chapter I	Federal Emergency Management Agency
Subchapter D	Disaster Assistance
Part 351	Radiological Emergency Planning and Preparedness

Lists of Orders and Regulations Applicable to the DOE-LM EMS[a] (continued)

Code of Federal Regulations	
Title 49—Transportation	
Subtitle A	Office of the Secretary of Transportation
Subtitle B	Other Regulations Relating to Transportation
Part 107	Hazardous Materials Program Procedures
Subchapter B	Oil Transportation
Part 130	Oil Spill Prevention and Response Plans
Subchapter C	Hazardous Materials Regulations
Part 171	General Information, Regulations, And Definitions
Part 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, And Training Requirements
Part 173	Shippers – General requirements For shipments and packaging
Part 177	Carriage by public highway
Part 178	Specifications for packaging
Part 180	Continuing qualification and maintenance of packaging
Chapter III	Federal Highway Administration, Department of Transportation
Subchapter B	Federal Motor Carrier Safety Regulations
Part 385	Safety Fitness Procedures
Part 390	Federal Motor Carrier Safety Regulations; General
Part 399	Employee Safety And Health Standards

[a]Individual regulations are occasionally updated. Use of this list should be subject to verification for potential updates.

This page intentionally left blank

Appendix D

Example Table of Functional and Project Group Environmental Responsibilities

This page intentionally left blank

Example Table of Functional and Project Group Environmental Responsibilities

Sustainable Practice/Goal	Functional and Project Group Responsibilities														
	Purchasing	Engineering & Construction	Fleet Management	Enterprise Management & IT	Maintenance	Site/Facility Operations	Utility Mgnt.	Env. Comp. & EMS	Beneficial Reuse & Property Management	Finance	Quality & Performance Assurance	Task Order Managers & Site Leads	Senior Management	DOE-LM	General Employee
Energy Efficiency															
Reduce energy intensity by 3% annually or 30% by 2015		O				X	X	O							
Renewable Energy															
50% of statutorily required renewable energy is from new renewable sources	O					X	X	X		O					
Implement renewable energy projects to the extent feasible		O				X	X	X	O			X			
Water Conservation															
Reduce water consumption intensity 2% annually or a minimum 16% by 2015					X	X	X	X	O	O					
Environmentally Preferable Purchasing															
Acquire • Biobased products	X														X
• Environmentally preferable products	X														X
• Energy efficient products	X														X
• Water-efficient products	X														X
• Recycled-content products	X														X
Use 30% post-consumer fiber content at a minimum	X									O					X
Waste Minimization & Pollution Prevention															
Recycling/reusing all types of materials that are classified as solid waste (e.g., plastic, cardboard, steel, glass, miscellaneous metals, aluminum, paper)										O					
Increase diversion of solid waste		X			X	X		X							X
Reducing the hazardous chemical inventory through alternative “green” product procurement								X							
Developing and implementing a pollution prevention opportunity assessment (PPOA) process								X							
Maintain cost effective waste prevention program								X							
Maximize use of safe alternatives to ozone-depleting substances					X	X	X	X							

X – Strong relationship 0 = Relationship

Example Table of Functional and Project Group Environmental Responsibilities (continued)

Sustainable Practice/Goal	Functional and Project Group Responsibilities														
	Purchasing	Engineering & Construction	Fleet Management	Enterprise Management & IT	Maintenance	Site/Facility Operations	Utility Mgnt.	Env. Comp. & EMS	Beneficial Reuse & Property Management	Finance	Quality & Performance Assurance	Task Order Managers & Site Leads	Senior Management	DOE-LM	General Employee
Sustainable Buildings															
Meet or exceed statuary goals for new construction		X						X	X						
Address Guiding Principles in new construction, major renovations		X						X	X						
Include preference for leased buildings that meet Guiding Principles	O							X	X						
Ensure 15% of existing capital assets incorporate Guiding Principles by 2015		X			O	X		X	X						
Vehicle and Fuel Management															
Reduce petroleum consumption in fleet vehicles by 2 percent annually through 2015			X					X							O
Increase the consumption of alternative fuel by at least 10 percent annually			X					X							
Plug-in hybrid vehicles when commercially available			X					X							
Electronic Stewardship															
Acquire 95% electronic products with EPEAT – register products	X			X				X							O
Establish policies to extend useful life of electronic equipment				X				X	O						
Dispose end of useful life electronics in environmentally sound manner				X				X							O
Land Stewardship															
Overall acreage improved per year					X			X							
Increased biodiversity					X			X							
EMS Description															
Identification of Planning & Aspects								X				X	X	X	
Identification of Objectives & Targets								X				X	X	X	
Implementation & Operation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Checking & Corrective Action								X				O	X	X	
Management Review								X				O	X	X	

X – Strong relationship 0 = Relationship

Appendix E

Example of Project Activity Evaluation Form

This page intentionally left blank

U.S. Department of Energy Office of Legacy Management

Project/Activity Evaluation

Requisition No. _____ Project/T.O. _____ Performance Period _____

Work Scope _____ Work Site _____

Type of Work (Line Supervisor—check all that apply)

- ☐ Construction/demolition
- ☐ Electrical systems
- ☐ Groundskeeping/landscaping/weed control
- ☐ Hazardous material use or transportation
  - Type of material _____
- ☐ Land clearing/grubbing
- ☐ Mechanical systems
- ☐ Office work
- ☐ Road maintenance
- ☐ Site inspection
- ☐ Excavation
- ☐ Treatment system maintenance
- ☐ Water/soil sampling
- ☐ Welding/cutting/grinding
- ☐ Well installation/drilling/decommissioning
- ☐ Other _____

Hazard Assessment (Line Supervisor and Health and Safety (H&S)—check all that apply)

- ☐ Asbestos
- ☐ Biological hazards
- ☐ Brush- or tree-cutting equipment
- ☐ Buried or overhead utilities
- ☐ Compressed gas cylinders
- ☐ Confined spaces
- ☐ Drilling
- ☐ Drowning
- ☐ Earth-moving equipment
- ☐ Electrical
- ☐ Ergonomic
- ☐ Eye injury
- ☐ Excavations
- ☐ Falls (to lower working level)
- ☐ Forklift
- ☐ Hands/feet injury
- ☐ Hazardous atmospheres
- ☐ Hazardous energy (LO/TO)
- ☐ Hazardous materials
- ☐ Head injury
- ☐ Heavy lifting >50 lb
- ☐ Hoisting/rigging
- ☐ Hot work
- ☐ Ladders
- ☐ Machinery
- ☐ Manlift
- ☐ Noise
- ☐ Hand tools
- ☐ Power hand tools
- ☐ Radiological
- ☐ Scaffolds
- ☐ Temperature/weather extremes
- ☐ Vehicle use
- ☐ Working alone
- ☐ Caught by/trapped between
- ☐ Other _____

H&S Requirements (determined by H&S staff—check all that apply)

- ☐ Plan of the Day/Week required
- ☐ Initial site/work briefing
- ☐ Daily safety briefing
- ☐ H&S plan or project safety plan
- ☐ H&S section in SOW
- ☐ Job safety analysis (JSA)
- ☐ Job coverage by Stoller personnel
- ☐ Fitness for duty evaluation (10 CFR 851)
- ☐ Personnel or atmospheric monitoring _____
- ☐ Personal protective equipment _____
- ☐ Safety permit type _____
- ☐ OSHA competent person type _____
- ☐ Training required _____
- ☐ Other _____

File Index Number _____

LMS 1005e
06/18/2008

Page 1 of 3

U.S. Department of Energy Office of Legacy Management

Environmental Aspects Checklist
(Line Supervisor and Environmental Compliance [EC] Staff—check all that apply)

- ☐ Above ground storage tank
- ☐ Air emissions, fugitive/visible dust emissions
- ☐ Asbestos
- ☐ Biota
  - ☐ Migratory birds
  - ☐ Noxious weeds
  - ☐ Threatened and endangered species
  - ☐ Other _____
- ☐ Chemical use and storage
- ☐ Consumptive use of water (water rights)
- ☐ Contaminated media disturbance
- ☐ Cultural/historical sites (SHPO)
  - ☐ Removal of structures
- ☐ Discharge to wastewater system
- ☐ Energy conservation
- ☐ Environmentally-preferred products/services
- ☐ Explosives use/management
- ☐ Floodplains/wetlands
- ☐ Monuments/parks/designated wilderness areas
- ☐ MSDS
- ☐ PCB contamination
- ☐ Pesticides/herbicides use/storage
- ☐ Petroleum products use/storage
- ☐ Radioactive materials use/storage
- ☐ Reclamation/revegetation activities
- ☐ Recycle and reuse of materials
- ☐ Surface/storm water runoff
- ☐ Storage tanks (other than water)
- ☐ Transportation of regulated materials
- ☐ Source reduction
- ☐ Underground injection
- ☐ Underground storage tanks
- ☐ Waste generation/management
  - ☐ Hazardous waste (RCRA/TSCA)
  - ☐ Investigative derived materials
  - ☐ Mixed waste
  - ☐ Radioactive waste
  - ☐ Solid waste/construction debris
- ☐ Well installation/abandonment
- ☐ Other _____
- ☐ EMS green sustainability aspects
  - ☐ Electronic stewardship
  - ☐ Energy efficiencies and greenhouse gases
  - ☐ Environmentally preferable purchasing
  - ☐ Land stewardship
  - ☐ Renewable energy
  - ☐ Sustainable buildings
  - ☐ Vehicle and fuel management
  - ☐ Waste minimization and pollution prevention
  - ☐ Water conservation

Environmental Requirements (determined by EC staff—check all that apply)

- ☐ Covered by existing policies and procedures — no action
- ☐ Follow-up required—see EC staff
- ☐ Monitoring requirements
- ☐ NEPA documentation sufficient
- ☐ Notifications
- ☐ Comments: _____
- ☐ Training required _____
- ☐ Permits
- ☐ Reporting requirements

Task Manager/ Subtask Manager	_____	Phone No.	_____	Date	_____
H&S review	_____	Phone No.	_____	Date	_____
EC review	_____	Phone No.	_____	Date	_____
Procurement review	_____	Phone No.	_____	Date	_____

LMS 1005e
06/18/2008

U.S. Department of Energy Office of Legacy Management

Project Resource Evaluation

List all resources required (List contractor names and/or individual names)	**Duration** (How long will the resources be required—hours, days, months)

Subcontracted Work

Brief scope of work:

Duration:

Equipment:

LMS 1005e
06/18/2008

Page 3 of 3

This page intentionally left blank